GLOSSARY

access control list (ACL) — A list of security identifiers that are contained by a resource object. Only those processes with the appropriate access token can activate the services of that object.

access token — Objects containing the security identifier of an active process. These tokens determine the security context of the process.

account lockout policy — Defines the conditions that result in a user account being locked out.

Active Directory — A centralized resource and security management, administration, and control mechanism used to support and maintain a Windows 2000 domain. The Active Directory is hosted by domain controllers, and contains information about a domain's user accounts, group memberships, group policies, and access controls for resources.

active partition — The partition that the computer uses to boot.

Address Resolution Protocol (ARP) — The IP protocol used to resolve numeric IP addresses into their MAC layer physical address equivalents.

Administrator — The Windows 2000 account designed to perform a full array of management functions.

Advanced RISC Computing (ARC) pathname — Naming convention used in the Boot.ini file to define the particular hard disk and partition where Windows 2000 operating system files reside.

alert — A watchdog that informs you when a counter crosses a defined threshold. An alert is an automated attendant looking for high or low values, and can consist of one or more counter/instance-based alert definitions.

answer file — A text file that contains a complete set of instructions for installing Windows 2000.

AppleTalk — The network protocol stack used predominantly in Apple Macintosh networks; this protocol is bundled with Windows 2000.

applet — A tool or utility found in the Control Panel that typically has a single focused purpose or function.

Application log — A log automatically created by Windows 2000 that records application events, alerts, and system messages.

application programming interface (API) — A set of software routines referenced by an application to access underlying application services.

architecture — The layout of operating system components and their relationships to one another.

Asynchronous Transfer Mode (ATM) — A cell-oriented, fiber- and copper-based networking technology that supports data rates from 25 Mbps to as high as 2.4 Gbps.

audit policy — Defines the events that are recorded in the Security log of the Event Viewer.

auditing — The recording of the occurrence of a defined event or action.

authentication — The process of validating a user's credentials to allow access to certain resources.

author mode — The condition of a console that allows users to add and remove snap-ins, create new windows, view the entire console tree, and save new versions of the console.

backup type — A backup configuration that determines how often data is backed up and the way old and new files should be handled. The types of backups are copy, daily, differential, incremental, and normal.

Backup utility — A tool that enables users to back up and restore their data and system configurations in case of a hardware or software failure.

base priority — The lowest priority that a thread may be assigned, based on the priority assigned to its process.

baseline — A definition of what a normal load looks like on a computer system; it provides a point of comparison against which you can measure future system behavior.

basic storage — The drive division method that employs partitions.

bindery — The database used by versions of NetWare before 4.0 to store network resource configuration information.

binding — The process of developing a stack by linking network services and protocols. The binding facility allows users to define exactly how network services operate in order to optimize the network performance.

BIOS (basic input/output system) — A special PC ROM chip that contains sufficient program code to let a computer perform a POST routine, to check its hardware components, and to operate basic input and output routines for keyboard or mouse input, and screen output.

boot loader — The software that shows all operating systems currently available and, via a menu, permits the user to choose which one should be booted.

boot partition — The partition that hosts the main Windows 2000 system files and is the initial default location for the paging file. The boot partition can be the same partition as the system partition, or it can be any other partition (or logical drive in an extended partition) on any drive hosted by the computer.

boot phase — Any of a number of stages in the Windows 2000 boot process, starting with the power-on self test (POST), through initial startup activities, to activation of a boot loader program, to selection of the operating system (or version) to boot, to hardware detection (Ntdetect), to selecting a configuration.

boot process — The process of bringing up a completely functional computer, starting from initial power-up (or reboot) through the boot phases and load phases involved in starting the hardware, finding a boot loader, and then loading and initializing an operating system.

boot selection menu — The list of bootable operating systems (or versions) that Boot.ini provides for display at the end of the Windows 2000 boot phase.

Boot.ini — The text file that creates the Windows 2000 boot loader's menu.

bottleneck — A system resource or device that limits a system's performance. Ideally, the user should be the bottleneck on a system, not any hardware or software component.

bound application — An application capable of running under the OS/2 subsystem or in a virtual DOS machine. If the OS/2 subsystem is available, it will be used by default.

boundary layer — Microsoft term for an interface that separates two classes of network or other system components. Boundary layers make it simpler for developers to build general-purpose applications without requiring them to manage all the details involved in network communications.

certificate — An electronic identity verification mechanism. Certificates are assigned to a client or server by a certificate authority. When communication begins, each side of the transmission can decide to either trust the other party based on its certificate and continue with the communication or not to trust the other party and terminate communication.

characterization data file — The file responsible for rendering the GDI commands into DDI commands that can be sent to the printer. Each graphics driver renders a different printer language.

child process — A process spawned within the context of some Windows 2000 environment subsystems (Win32, OS/2, or POSIX) that inherits operating characteristics from its parent subsystem, and access characteristics from the permissions associated with the account that requested it to be launched.

clean installation — *See* fresh installation.

client — A computer used to access network resources.

client application (*see also* print client) — An application or service that creates print jobs for output, which may be either end-user-originated or created by a print server itself.

Client Service for NetWare (CSNW) — Service included with Windows 2000 Professional that provides easy connection to NetWare servers.

cluster — One or more sectors grouped into a single non-divisible unit.

CMOS (complementary metal-oxide semiconductor) — A special, battery-powered chip that can store not only the software necessary to conduct the POST, but also the basic, nonvolatile

configuration information that POST uses to check the RAM installed in a system, the number and type of hard drives, the type of keyboard and mouse, and so forth.

computer information file (CIF) — A detailed collection of all information related to the hardware and software products that compose your computer (and even your entire intranet).

connecting to a printer — The negotiation of a connection to a shared printer through the browser service from a client or service across the network to the machine where the shared printer resides.

connection-oriented — A class of network transport protocols that includes guaranteed delivery, explicit acknowledgment of data receipt, and a variety of data integrity checks to ensure reliable transmission and reception of data across a network. Although reliable, connection-oriented protocols can be slow because of the overhead and extra communication.

connectionless — A class of network transport protocols that makes only a "best effort" attempt at delivery, and that includes no explicit mechanisms to guarantee delivery or data integrity. Because such protocols need not be particularly reliable, they are often much faster and require less overhead than connection-oriented protocols.

console — The collection of snap-ins and extensions saved as an .msc file loaded into the MMC that offers administrative controls.

container — A logical component used for delegation. Containers contain objects such as "user" type or "computer" type objects.

context — (1) The collection of Registry values and run-time environment variables in which a process or thread is currently running. (2) The location of an NDS object in the NDS tree.

context switch — The act of unloading the context information for one process and replacing it with the information for another, when the new process comes to the foreground.

Control Panel — The collection or organization of tools and utilities, called applets, within Windows 2000 (and Windows 95, 98, and Windows NT) where most system- and hardware-level installation and configuration take place.

control set — A special set of Registry values that describes a Windows 2000 machine's startup configuration that is saved each time a Windows machine is shut down (as the current configuration) and each time a user successfully logs on for the first time after bootup (as the Last Known Good Configuration).

cooperative multitasking — A computing environment in which the individual application maintains control over the duration that its threads use operating time on the CPU.

copy backup — A method of backing up all selected files without marking them as being backed up.

counter (or **performance counter)** — A named aspect or activity that the Performance tool uses to measure or monitor some aspect of a registered system or application object.

Counter log — A log that records measurements on selected counters at regular, defined intervals. Counter logs allow you to define exactly which counters are recorded (based on computer, object, counter, and instance).

creating a printer — Setting up a printer for local use.

critical section — In operating system terminology, this refers to a section of code that can only be accessed by a single thread at any one time, to prevent uncertain results from occurring when multiple threads attempt to change or access values included in that code at the same time.

daily backup — A method of backing up only the selected files that have been created or modified on the day that the backup is being performed. They are not marked as being backed up.

Data Link Control (DLC) — A low-level network protocol designed for mainframe connectivity, remote booting, and network printing.

data type — (1) The format in which print jobs are sent to the spooler. Some data types are ready for printing (RAW) and some require further preparation (EMF). (2) The setting on a Registry value entry that defines the data format of the stored information.

defragmentation — The process of reorganizing files so they are stored contiguously and no gaps are left between files.

delegation — The process of assigning groups or individuals access to manage objects. In Active Directory, delegation allows a domain to be segmented into various logical components. Permissions to manage these logical segments can also be delegated.

demand paging — The act of requesting free pages of memory from RAM for an active application.

device — A physical component either internal or external to the computer that is used to perform a specific function. Devices include hard drives, video cards, network interface cards, and printers.

Device Driver Interface (DDI) — A specific code component that handles the translation of generic print commands into device-specific equivalents, immediately prior to delivery of a spool file to a print device.

differential backup — A method of backing up selected files that have been created or modified since the last full backup. They are not marked as being backed up.

direct-attached printer — A print device attached directly to a computer, usually through a parallel port (*see also* network interface printer).

directory — An information source used to store information about useful, manageable objects.

directory service — A service that differs from a directory in that it is defined as both the directory information source (that is, the database) and the services (that is, LDAP) that make information available to and usable by the users and administrators.

disabled — The state of a user account which is retained on the system but cannot be used to log on.

disk bottleneck — A system bottleneck caused by a limitation in a computer's disk subsystem, such as a slow drive or controller, or a heavier load than the system can handle.

Disk Management — The Microsoft Management Console (MMC) snap-in used to manage drives.

disk quota — A limitation on the amount of disk space that can be consumed by a user.

Distributed File System (DFS) — A Windows 2000 Server hosted service used to manipulate and manage shared resources from various locations throughout a network in a single hierarchical system.

DMA (direct memory access) — A channel used by a hardware device to access memory directly, bypassing the CPU. Windows 2000 supports eight DMA channels, numbered 0 through 7.

docking station — An expansion device for notebook computers that allows additional peripherals to be used by the portable computer. Typically, a docking station is used to add a full-sized monitor, keyboard, mouse, CD-ROM drive, tape backup, or printer to a notebook computer.

domain — An organizational unit used to centralize network users and resources.

domain controller (DC) — A computer that maintains the domain's Active Directory, which stores all information and relationships about users, groups, policies, computers, and resources.

domain model — The networking setup in which there is centralized administrative and security control. One or more servers are dedicated to the task of controlling the domain, providing access and authentication for shared domain resources to member computers.

Domain Name Service (DNS) — TCP/IP service that is used to resolve names to IP addresses.

domain security — The control of user accounts, group memberships, and resource access for all members of a network instead of for only a single computer.

domain user account — A user account that can be used throughout a domain.

DOS operating environment — A general term used to describe the reasonably thorough DOS emulation capabilities provided in a Windows 2000 virtual DOS machine (VDM).

Dr. Watson — An application error debugger. This diagnostic tool detects application failures and logs diagnostic details.

drive letter — One of two methods of accessing file system resources on formatted volumes under Windows 2000. A drive letter can be assigned to a partition or volume or a drive configuration of multiple components.

driver — A software element that is used by an operating system to control a device. Drivers are usually device-specific.

DSCrackNames — A specific Windows 2000 NTDS API (NT Directory Services application programming interface) that accepts a name and

then outputs the desired result. As an example, you could offer DsCrackNames a Windows NT 4 style name "DOMAIN\USER" and request a User Principal Name (UPN). Your result would be *user@domain.com*.

dual-boot system — A multiboot system with only two operating systems.

Dynamic Data Exchange (DDE) — A method of interprocess communication within the Windows operating system.

Dynamic Host Configuration Protocol (DHCP) — An IP-based address management service that permits clients to obtain IP addresses from a DHCP server. This allows network administrators to control and manage IP addresses centrally, rather than on a per-machine basis.

dynamic link library (DLL) — A Microsoft Windows executable code module that is loaded on demand. Each DLL performs a unique function or small set of functions requested by applications.

dynamic storage — The drive division method that employs volumes. It is a new standard supported only by Windows 2000.

effective policy — The cumulative result of the priority application of group policies.

Emergency Repair Disk (ERD) — A disk that contains configuration information about your PC. It can be used to restore a PC if Windows will not start or the system files are corrupt or missing.

encrypting file system (EFS) — A security feature of NTFS under Windows 2000 that allows files, folders, or entire drives to be encrypted. Once encrypted, only the user account that enabled the encryption has the proper private key to decrypt and access the secured objects.

enhanced metafile (EMF) — Device-independent spool data used to reduce the amount of time spent processing a print job. Once it's queued, EMF data requires additional processing to prepare it for the printer.

environment subsystem — A mini-operating system running within Windows 2000, providing an interface between applications and the kernel. Windows 2000 has three environment subsystems: Win32, OS/2, and POSIX, but only Win32 is required for Windows 2000 to function.

Ethernet II — An older version of Ethernet that preceded the 802.3 specification, offering the same 10 Mbps as standard Ethernet, but using a different frame format.

event — Any significant occurrence in the system or in an application that requires users to be notified or a log entry to be added. Types of events include audits, driver failures, user logons, process launchings, and system shutdowns.

Event Viewer — A system utility that displays one of three event logs: System, Security, and Application, wherein logged or audited events appear. The Event Viewer is often the first stop when monitoring a system's performance or seeking evidence of problems because it is where all unusual or extraordinary system activities and events are recorded.

Executive Services — The collection of kernel mode components designed for operating system management.

extended partition — A type of partition on a basic disk that can be divided into logical drives. Only a single extended partition can exist on a physical disk, and when present only three primary partitions can exist.

extension — A component that adds additional functions to a snap-in.

FAT (file allocation table) or **FAT16** — The file system used in versions of MS-DOS. Supported in Windows 2000 in its VFAT form, which adds long filenames and 4 GB file and volume sizes.

FAT32 — The 32-bit FAT file system. As supported under Windows 2000, it can be used to format partitions or volumes up to 32 GB.

FDISK — A DOS utility used to partition a hard disk. The DOS FDISK tool can only recognize and manipulate primary NTFS partitions; it cannot even view logical drives in an extended partition formatted with NTFS.

Fiber Distributed Data Interface (FDDI) — A 100 Mbps fiber-based networking technology.

file system — The method used to arrange files on disk and read and write them. Windows 2000 supports NTFS, FAT, and FAT32 disk file systems.

File Transfer Protocol (FTP) — The protocol and service that provides TCP/IP-based file transfer to and from remote hosts and confers the ability to navigate and operate within remote file systems.

flush — The activity of forcing the memory-resident copy of the Registry to be written to files stored on the hard drive. A flush occurs at shutdown, when forced by an application, or just after a Registry alteration.

folder redirection — A component of IntelliMirror technologies that uses group policies to place specified user folders on a share on the network.

format — Rewriting the track and sector information on a disk. This process removes all data previously on the disk.

fragmentation — The division of a file into two or more parts where each part is stored in a different location on the hard drive. As the level of fragmentation on a drive increases, the longer it takes for read and write operations to occur.

frame type — One of four available packet structures supported by IPX/SPX and NWLink. The four frame types supported are Ethernet 802.2, Ethernet 802.3, Ethernet II, and Ethernet SNAP.

fresh installation — The installation method in which an operating system is installed without regard to preexisting operating systems. In other words, all settings and configurations are set to the OS's defaults.

gateway — A computer that serves as a router, a format translator, or a security filter for an entire network.

global group — A group which exists throughout a domain. A global group can be created only on a Windows 2000 Server system.

graphical device interface (GDI) — The portion of the Windows 2000 operating system responsible for the first step of preparing all graphical output, whether to be sent to a monitor or to the printer.

group policy — An MMC snap-in that is used to specify desktop settings for group members.

groups — Named collections of users to which you assign permissions. For example, the Administrators group contains all users who require administrative access to network resources and user accounts.

handle — A programming term that indicates an internal identifier for some kind of system resource, object, or other component that must be accessed by name (or through a pointer). In Task Manager, the number of handles appears on the Performance tab in the Totals pane. A sudden increase in the number of handles, threads, or processes can indicate that an ill-behaved application is running on a system.

hardware abstraction layer (HAL) — One of the few components of the Windows 2000 architecture that is written in hardware-dependent code. It is designed to protect hardware resources.

hardware compatibility list (HCL) — Microsoft's updated list of supported hardware for Windows 2000.

hardware profile — A collection of custom device settings used on computers with changing physical components.

hive — A discrete body of Registry keys, subkeys, and values stored in a file.

HKEY_CLASSES_ROOT — This Registry key contains the value entries that control the relationships between file extensions (and therefore file format types) and applications. This key also supports the data used in object linking and embedding (OLE), COM object data, and file-class association data. This key actually points to another Registry key named HKEY_LOCAL_MACHINE\ Software\Classes, and provides multiple points of access to make itself easily accessible to the operating system itself and to applications that need access to the compatibility information already mentioned.

HKEY_CURRENT_CONFIG — This Registry key contains the value entries that control the currently active hardware profile. The contents of this key are built each time the system is booted. This key is derived from data stored in the HKEY_LOCAL_MACHINE\ System\ CurrentControlSet\ HardwareProfiles\Current subkey. This key exists to provide backward-compatibility with Windows 95/98 applications.

HKEY_CURRENT_USER — This Registry key contains the value entries that define the user environment for the currently logged on user. This key is built each time a user logs on to the system. The data in this key is derived from the HKEY_USERS key and the Ntuser.dat and Ntuser.man files of a user's profile.

HKEY_LOCAL_MACHINE — This Registry key contains the value entries that control the local computer. This includes hardware devices, device drivers, and various operating system

components. The data stored in this key is not dependent on a logged on user or the applications or processes in use.

HKEY_USERS — This Registry key contains the value entries that define the user environments for all users who have ever logged on to this computer. As a new user logs on to this system, a new subkey is added for that user, which is either built from the default profile stored in this key or from the roaming user profile associated with the domain user account.

HOSTS — A static file placed on members of a network to provide name resolution between hosts and IP addresses.

hot fix — Similar to a service pack, except that a hot fix addresses only a single problem, or a small number of problems, and may not be fully tested.

I/O port — The section of memory used by the hardware to communicate with the operating system. When an IRQ is used, the system checks the I/O port memory area for additional information about what function is needed by the device. The I/O port is represented by a hexadecimal number.

identification — The process of establishing a valid account identity on a Windows 2000 machine by supplying a correct and working domain name (if necessary) and an account name at logon.

idle disconnect — A feature that breaks off a RAS connection after a specified period of time has gone by with no activity. This feature reduces the costs of remote access, helps you troubleshoot by closing dead connections, and frees up inactive RAS ports.

imported user account — A local account created by duplicating the name and password of an existing domain account. An imported account can be used only when the Windows 2000 Professional system is able to communicate with the domain of the original account.

incremental backup — A method of backing up selected files that have been created or modified since the last normal or incremental backup. These files are marked as being backed up.

inheritance — A process that lets a given ACE propagate from the container where it was applied to all children of the container.

input message queue — A queue for each process, maintained by the Win32 subsystem, that contains the messages sent to the process from the user, directing its threads to do something.

instance — A selection of a specific object when more than one is present on the monitored system; for example, multiple CPUs or hard drives.

Integrated Services Digital Network (ISDN) — A direct, digital, dial-up Public Switched Telephone Network (PSTN) Data Link layer connection that operates at 64 KB per channel over regular twisted-pair cable between a subscriber site and a PSTN central office.

IntelliMirror — A set of features within Windows 2000 that utilizes policies, folder redirection, and the Windows Installer Service (WIS) for backing up and restoring users' data, personalized settings, and applications.

Internet Control Message Protocol (ICMP) — The protocol in the TCP/IP suite that handles communication between devices about network traffic, quality of service, and requests for specific acknowledgments (such as those used in the PING utility).

Internet Printing Protocol (IPP) — A new Windows 2000 protocol that adds Web support to the print subsystem. IPP allows remote users to submit print jobs for printing, view printer queues, and download print drivers.

Internet Protocol (IP) — The protocol that handles routing and addressing information for the TCP/IP protocol suite. IP provides a simple connectionless transmission that relies on higher-layer protocols to establish reliability.

Internet Protocol Security (IPSec) — A security protocol that secures data at the packet level.

Internetwork Packet Exchange (IPX) — The protocol developed by Novell for its NetWare product. IPX is a routable, connection-oriented protocol similar to TCP/IP but much easier to manage, and with lower communication overhead.

interprocess communication (IPC) — The mechanism that defines a way for internal Windows processes to exchange information.

IPX/SPX — The protocol suite consisting of IPX and SPX. *See* IPX and SPX for more information.

IRQ (interrupt request) — The interrupt request level that is used to halt CPU operation in favor

of the device. Windows 2000 supports 16 interrupts, namely IRQ 0 through 15.

Kerberos — An encryption authentication scheme employed by Windows 2000 to verify the identity of a server and a client before actual data is transferred.

kernel — The part of Windows 2000 composed of system services that interact directly with applications; it controls all application contact with the computer.

kernel mode — Systems running in kernel mode are operating within a shared memory space and with access to hardware. Windows 2000 Executive Services operates in kernel mode.

key — A top-level division of the Registry. There are five keys in a Windows 2000 Registry. A key can contain subkeys.

language monitor — The part of the print monitor that sets up bidirectional messaging between the printer and the computer initiating the print job.

Last Known Good Configuration (LKGC) — The control set for Windows 2000 that is automatically saved by the system in a special set of Registry keys the first time a user logs on successfully to a system immediately after it has booted up. This information provides a safe fallback to use when booting the system the next time, if changes made to the Registry in the interim cause problems with booting (or if changes have been introduced that a user does not wish to retain on that system).

Layer 2 Tunneling Protocol (L2TP) — A VPN (virtual private network) protocol developed by Cisco to improve security over Internet links by integrating with IPSec (IP Security).

Lightweight Directory Access Protocol (LDAP) — An X.500-based protocol used to access information directories.

LMHOSTS — File used in Microsoft networks to provide NetBIOS name-to-address resolution.

load phase — The Windows 2000 load phase begins when the kernel assumes control of the machine, and consists of the following five steps: (1) loading the kernel, (2) initializing the kernel, (3) loading services, (4) starting the Windows 2000 system, and (5) logging on. All five steps must be completed successfully for a complete load to occur.

local computer policy — A Windows 2000 security control feature used to define and regulate security-related features and functions.

local computer security — The control of user accounts, group memberships, and resource access for a single computer.

local group — A group which exists only on the computer where it was created. A local group can have users and global groups as members.

local procedure call (LPC) — A technique to permit processes to exchange data in the Windows 2000 run-time environment. LPCs define a rigorous interface to let client programs request services, and to let server programs respond to such requests.

local profile — A set of specifications and preferences for an individual user stored on a local machine.

Local Security Policy — The centralized control mechanism which governs password, account lockout, audit, user rights, security options, public key, and IP security.

local user account — A user account that exists on a single computer.

locked out — The state of a user account that is disabled because of repeated failed logon attempts.

logon authentication — The requirement to provide a name and password to gain access to the computer.

logon script — A code script that can map drive letters, launch applications, or perform other command-line operations each time the system boots.

long filenames (LFNs) — Filenames up to 256 characters in length, supported by all file systems under Windows 2000.

mandatory profile — A user profile which does not retain changes after the user logs out. Mandatory profiles are used to maintain a common desktop environment for users.

mapped drive — A share on Windows 2000 or NT servers that has been linked to drive letters on the client.

master boot record (MBR) — The first sector on a hard disk, which contains executable code and a partition table, which stores information about the disk's primary and extended partitions. A functioning MBR is required to boot a hard disk.

memory bottleneck — A system bottleneck caused by a lack of available physical or virtual memory that results in system slowdown or (in extreme cases) an outright system crash.

memory page — *See* page.

Microsoft Management Console (MMC) — The standardized interface into which consoles, snap-ins, and extensions are loaded to perform administrative tasks.

mirrored volume — A drive configuration of a single volume is duplicated onto another volume on a different hard drive and provides fault tolerance. In Windows NT, a mirror onto a drive hosted by a different drive controller was called duplexing, but this distinction is no longer used in Windows 2000 (Windows 2000 Server only).

mismatched document — A document with incompatible printer and page settings (that is, the page settings are impossible to produce given the existing printer settings).

mode — A programming and operational separation of components, functions, and services.

mount point or **mounted volume** — A new drive access technique that maps a volume or partition to an empty directory on an NTFS volume or partition.

MS-DOS — One of the most popular character-based operating systems for personal computers. Many DOS concepts are still in use by modern operating systems.

multiboot system — A computer that hosts two or more operating systems that can be booted by selecting one from a boot menu or boot manager during each power on.

Multilink PPP — The ability of RAS to aggregate multiple data streams into one network connection for the purpose of using more than one modem or ISDN channel in a single connection.

Multiple Universal Naming Convention Provider (MUP) — A Windows 2000 software component that allows two or more UNC providers (for example, Microsoft networks and NetWare networks) to exist simultaneously. The MUP determines which UNC provider will handle a particular UNC request and forwards the request to that provider.

multiple-user system — An operating system which maintains separate and distinct user accounts for each person.

multiprocessing — The ability to distribute threads among multiple CPUs on the same system.

multitasking — Sharing processor time between threads. Multitasking may be preemptive (one thread may bump another one if the thread really needs the processor), or cooperative (one thread will retain control of the processor until its turn to use it is over). Windows 2000 uses preemptive multitasking except in the context of the WOW operating environment, because Windows 3.x applications expect cooperative multitasking.

multithreaded process — A process with more than one thread running at a time.

multithreading — The ability of an operating system and hardware to execute multiple pieces of code (or threads) from a single application simultaneously.

multi-master replication — A replication model that is different from other models because any domain controller can accept and replicate directory changes.

Multi-Provider Router (MPR) — A file system service that can designate the proper redirector to handle a resource request that does not use UNC naming. The MPR lets applications written to older Microsoft specifications behave as if they used UNC naming. The MPR is able to recognize those UNCs that correspond to defined drive mappings.

naming convention — A standardized regular method of creating names for objects, users, computers, groups, etc.

NDS tree — The hierarchical representation of the Novell Directory Services database on NetWare 4.0 and higher networks.

NetBIOS Enhanced User Interface (NetBEUI) — A simple transport program developed to support NetBIOS installations. NetBEUI is not routable, so it is not appropriate for larger networks.

NetBIOS gateway — A service provided by RAS that allows NetBIOS requests to be forwarded independently of transport protocol. For example, NetBEUI can be sent over the network via NWLink.

NetWare Core Protocol (NCP) — The protocol used by CSNW to make file and print services requests of NetWare servers.

network adapter — Another name for network interface card (NIC), the piece of hardware that enables communication between the computer and the network.

network authentication — Part of the act of connecting to or accessing resources from some other member of the domain network. Network authentication is used to prove that you are a valid member of the domain, that your user account is properly authenticated, and that you have access permissions to perform the requested action.

Network Basic Input/Output System (NetBIOS) — A client/server interprocess communication service developed by IBM in 1985. NetBIOS presents a relatively primitive mechanism for communication in client/server applications, but allows an easy implementation across various Microsoft Windows computers.

Network Basic Input/Output System (NetBIOS) — The method used by LANManager for network naming and transport functions.

network bottleneck — A system bottleneck cause by excessive traffic on the network medium to which a computer is attached, or when the computer itself generates excessive amounts of such traffic.

Network Driver Interface Specification (NDIS) — Microsoft specification that defines parameters for loading more than one protocol on a network adapter.

Network Dynamic Data Exchange (NetDDE) — An interprocess communication mechanism developed by Microsoft to support the distribution of DDE applications over a network.

Network File System (NFS) — A UDP-based networked file system originally developed by Sun Microsystems and widely used on many TCP/IP networks. (Windows 2000 does not include built-in NFS support, but numerous third-party options are available.)

network interface printer — A print device attached directly to the network medium, usually by means of a built-in network interface integrated within the printer, but sometimes by means of a parallel-attached network printer interface.

network number — The specific network identifier used by IPX for internal and network communication.

normal (or full) backup — A method of backing up all selected files and marking them as being backed up.

Novell Directory Services (NDS) — The hierarchical database used by NetWare 4.0 and higher servers to store network resource object configuration information.

NTFS (New Technology File System) — The preferred file system of Windows 2000. Supports file level security, encryption, compression, auditing, and more. Supports volumes up to 2 TB.

Ntldr — The Windows 2000 loader program that manages the boot and load phases of Windows 2000 on a PC, as soon as the MBR passes control to that program, through the loading of Ntoskrnl.exe (the Windows 2000 kernel program), which completes the loading of the operating system itself.

NTLM (NT LAN Manager) authentication — The authentication mechanism used on Windows NT that is retained by Windows 2000 for backward compatibility.

NWLink — Microsoft's implementation of Novell's IPX/SPX protocol suite.

object — Everything within the Windows 2000 operating environment is an object. Objects include files, folders, shares, printers, and processes.

Open Datalink Interface (ODI) — A part of the Novell protocol suite that provides the ability to bind more than one protocol to an adapter.

operating system — Software designed to work directly with hardware to provide a computing environment within which production and entertainment software can execute, and which creates a user interface to allow human interaction with the computer.

organizational unit (OU) — A container object that is an administrative partition of the Active Directory. OUs can contain users, groups, resources, and other OUs. OUs enable the delegation of administration to distinct subtrees of the directory.

OS/2 — An operating system developed by IBM. Windows 2000 offers some OS/2 application support.

OS/2 subsystem — The Windows 2000 subsystem used for running OS/2 applications; an emulation of OS/2 version 1.x (character mode only).

Packet Internet Groper (PING) — An IP-based utility that can be used to check network connectivity or to verify whether a specific host elsewhere on the network can be reached.

page — A 4 KB chunk of data, which is the smallest unit managed by the Virtual Memory Manager. Pages are moved around physical RAM and to and from the paging file.

paging file — A file stored on a hard drive, employed by the Virtual Memory Manager as a temporary storage container for inactive memory pages. Its name is Pagefile.sys.

parent process — The Windows 2000 environment subsystem that creates a run-time process, and imbues that child process with characteristics associated with that parent's interfaces, capabilities, and run-time requirements.

partition — A space set aside on a disk and assigned a drive letter. A partition may take up all or part of the space on a disk. You create partitions when installing an operating system or when adding new drives.

partition boot sector — The partition that contains the information the file system uses to access the volume, including a physical description of the disk, the name and version of the operating system files, the bootstrap code, and an instruction that allows the Master Boot Record to find all this information.

password — A unique string of characters that must be provided before a logon or an access is authorized. Passwords are a security measure used to restrict initial access to Windows 2000 resources.

password policy — Defines the restrictions on passwords.

PC Cards — The modern name of the PCMCIA technology. PC Cards are credit card-sized devices typically used to expand the functionality of notebook or portable computers.

PCMCIA (Personal Computer Memory Card International Association) Cards — The older name for the technology now labeled PC Cards. PCMCIA Cards are credit card-sized devices typically used to expand the functionality of notebook or portable computers.

peer-to-peer — A type of networking in which each computer can be a client to other computers, and act as a server as well.

Plug and Play — A technology that allows an operating system to inspect a device, determine exactly what the device is, install the correct driver, and enable the device—all without user interaction. Plug and play simplifies the addition and removal of hardware and can often offer on-the-fly reconfiguration of devices without rebooting.

Point-to-Point Protocol (PPP) — A Network layer transport protocol that provides connectivity over serial or modem lines. PPP can negotiate any transport protocol used by both systems involved in the link and can automatically assign IP, DNS, and gateway addresses when used with TCP/IP.

Point-to-Point Tunneling Protocol (PPTP) — A network protocol that allows users to create secure connections to corporate networks over the Internet, using virtual private networks (VPNs), which use encryption to transport private data across public links.

policy — A set of configuration options that defines aspects of Windows 2000 security.

port — Any physical communications channel to which a modem, direct cable, or other device can be connected to enable a link between two computers.

port monitor — The part of the print monitor that transmits the print job to the print device via the specified port. Port monitors are actually unaware of print devices as such, but only know that something's on the other end of the port.

POSIX (Portable Operating System Interface for Computing Environments) — A set of standards drafted by the Institute of Electrical and Electronic Engineers (IEEE) that defines various aspects of an operating system, including topics such as programming interface, security, networking, and graphical interface.

POSIX subsystem — The Windows 2000 subsystem used for running POSIX applications.

power-on self test (POST) — The system check performed by all computers when they are turned on.

preemptive multitasking — A computing environment in which the operating system maintains control over the duration of operating time any

thread (a single process of an application) is granted on the CPU.

primary partition — A type of partition on a basic disk that can be marked active. Up to four primary partitions can exist on a physical disk, but only one partition can be active.

principal — A security object in Kerberos. In Active Directory the Security Principals include Users, Computers, and Groups.

print client — A network client machine that transmits print jobs across the network to a printer for spooling and delivery to a designated print device or printer pool.

print device — In everyday language, a piece of equipment that provides output service—in other words, a printer. However, in Microsoft terminology, a printer is a logical service that accepts print jobs and delivers them to some print device for output when that device is ready. Therefore, in Microsoft terminology, a print device is any piece of equipment that can produce output, so this term would also describe a plotter, a fax machine, or a slide printer, as well as a text-oriented output device such as an HP LaserJet.

print job — The contents of a completely or partially interpreted data file that contains text and control characters that will ultimately be delivered to a print device to be printed, or otherwise rendered in some tangible form.

print processor — Software that works with the printer driver to despool files and make any necessary changes to the data to format it for use with a particular printer. The print processor itself is a PostScript program that understands the format of a document image file and how to print the file to a specific PostScript printer or class of printers.

print provider — The server-side software that sends the print job to the proper server in the format that it requires. Windows 2000 supports both Windows network print providers and NetWare print providers.

print resolution — A measurement of the number of dots per inch (dpi) that describes the output capabilities of a print device; most laser printers usually produce output at 300 or 600 dpi. In general, the larger the dpi rating for a device, the better looking its output will be (but high-resolution devices cost more than low-resolution ones).

print router — The software component in the Windows 2000 print subsystem that directs print jobs from one print server to another, or from a client to a remote printer.

print server — A computer that links print devices to the network and shares those devices with client computers on the network.

Print Server services — A collection of named software components on a print server that handles incoming print jobs and forwards them to a print spooler for postprocessing and delivery to a print device. These components include support for special job handling that can enable a variety of client computers to send print jobs to a print server for processing.

print spooler — A collection of Windows 2000 DLLs used to acquire, process, catalog, and dispense print jobs to print devices. The spooler acts like a holding tank, in that it manages an area on disk called the spool file on a print server, where pending print jobs are stored until they've been successfully output. The term "despooling" refers to the process of reading and interpreting what's in a spool file for delivery to a print device.

printer (logical printer) — In Microsoft terminology, a printer is not a physical device, but rather a named system object that communicates between the operating system and some print device. The printer handles the printing process for Windows 2000 from the time a print command is issued, until a print job has been successfully output. The settings established for a printer in the Add Printer Wizard in the Printers folder (Start, Programs, Printers) indicate which print device (or devices, in the case of a printer pool) will handle print output, and also provide controls over how print jobs will be handled (banner page, special postprocessing, and so forth).

printer driver — Special-purpose software components that manage communications between the I/O Manager and a specific print device. Ultimately, printer drivers make it possible for Windows 2000 to despool print jobs, and send them to a print device for output services. Modern printer drivers also permit the printer to communicate with Windows 2000, and to inform it about print job status, error conditions (out of

paper, paper jam, and so forth), and print job problems.

printer graphics driver — The part of the printer driver that renders GDI commands into device driver interface commands that may be sent to the printer.

printer interface driver — The part of the printer driver that provides an interface to the printer settings.

Printer Job Language — A specialized language that provides printer control at the print-job level and enables users to change printer default levels such as number of copies, color, printer languages, and so on.

printer pool — A collection of two or more identically configured print devices to which one or more Windows 2000 printers direct their print jobs. Basically, a printer pool permits two or more printers to act in concert to handle high-volume printing needs.

printer priority — The setting that helps to determine which printer in a pool will get a given print job. The printer with the higher priority is more likely to get the print job.

process — The primary unit of execution in the Windows 2000 operating system environment, a process may contain one or more execution threads, all associated with a named user account, SID, and access token. Processes essentially define the container within which individual applications and commands execute under Windows 2000.

processor bottleneck — A system bottleneck that occurs when demands for CPU cycles from currently active processes and the operating system cannot be met, usually indicated by high utilization levels or processor queue lengths greater than or equal to two.

profile — *See* user profile.

proxy server — Software that sits between network users and the Internet, providing a layer of security to reduce the risk of network break-ins from the Internet.

public key policy — A security control of Windows 2000 whereby recovery agents for EFS and domain-wide and trusted certificate authorities are defined and configured. These policies can be enforced on a user-by-user basis.

PXE (Pre-boot Execution) — A standard environment in PC98-compliant computers and network computers that can be used for a remote OS installation.

queue (print queue) — A series of files stored in sequential order waiting for delivery from a spool file to a print device.

RAID 5 volume — A drive configuration of three or more (up to 32) parts of one or more drives or three or more (up to 32) entire drives. Data is written to all drives in equal amounts to spread the workload. Parity information is added to the written data to allow for drive failure recovery. Provides fault tolerance. If one partition or drive fails in the set, the other members can re-create the missing data on the fly. When the failed member is replaced or repaired, the data on that drive can be rebuilt and restored. This is also known as disk striping with parity (Windows 2000 Server only).

RAW — Device-dependent spool data that is fully ready to be printed when rendered.

real mode — A DOS term that describes a mode of operation for x86 CPUs wherein they can address only 1 MB of memory, broken into 16 64-KB segments, where the lower ten such segments are available to applications (the infamous 640 KB), and the upper six segments are available to the operating system or to special application drivers—or, for Windows 2000, to a VDM.

Recovery Console — A command-line interface that provides administrative tools useful for recovering a system that is not booting correctly.

redirector — Software that examines all requests for system resources and decides whether such requests are local or remote.

REG_BINARY — A Registry value entry data type that stores data in binary format.

REG_DWORD — A Registry value entry data type that stores data in binary, hex, or decimal format.

REG_EXPAND_SZ — A Registry value entry data type that stores data in expandable text-string format that contains a variable that is replaced by an application when it is used (for example, %Systemroot%\File.exe).

REG_MULTI_SZ — A Registry value entry data type that stores data in text-string format that contains multiple human-readable values separated by null characters.

REG_SZ — A Registry value entry data type that stores data in text-string format.

Regedit — The 16-bit Registry editor. Regedit offers global searching and combines all of the keys into a single display. It can be used to perform searches, add new subkeys and value entries, alter the data in value entries, and import and export keys and subkeys.

Regedt32 — The 32-bit Registry editor. Regedt32 offers control over key and value entry security, but displays each root key in a separate window. Regedt32 also offers a read-only mode so you can explore the Registry without the possibility of accidentally altering value entries. It can be used to perform searches, add new subkeys and value entries, alter the data in value entries, and import and export keys and subkeys.

Registry — The hierarchical database of system configuration data, which is essential to the health and operation of a Windows 2000 system.

Remote Access Service (RAS) — The service in Windows 2000 that allows users to log on to the system remotely over phone lines.

Remote Installation Preparation (RIPrep) — A type of installation used with remote OS installation whereby an administrator can take an entire image of one Windows 2000 Professional machine and install that image onto other workstations.

Remote Installation Services (RIS) — An optional service in Windows 2000 Server that works with various other services to enable remote installations, including a remote operating system installation.

remote execution (rexec) — The IP-based utility that permits a user on one machine to execute a program on another machine elsewhere on the network.

remote OS installation — A component of Remote Installation Services (RIS) that can install Windows 2000 Professional on remote-boot-enabled PCs across a network.

remote shell (rsh) — The IP-based utility that permits a user on one machine to enter a shell command on another machine on the network.

removable storage device — Any type of floppy, cartridge, or drive that can be either removed between reboots or as a hot swappable device.

rendering — Graphically creating a print job.

replication (directory replication) — The process of two systems in a homogenous system sharing directory information over the directory services interface. The directory services interface could be based on LDAP or the X.500 DRA (Directory Replication Agent).

resources — Any useful service or object on a network. This includes printers, shared directories, and software applications. A resource can be accessible by everyone across the network or by only one person on a single machine, and at any level in between.

restartable file copy — A RAS feature that automatically retransmits file transfers that are incomplete because of a RAS connectivity interruption.

Reverse Address Resolution Protocol (RARP) — Used to map from a MAC-layer address to a numeric IP address.

roaming profile — A profile that resides on a network server to make it broadly accessible. When a user whose profile is designated as roaming logs on to any Windows 2000 system on the network, that profile is automatically downloaded when the user logs on.

sector — The smallest division (512 bytes) of a drive's surface.

Secure Sockets Layer/Transport Layer Security (SSL/TLS) — A mechanism used primarily over HTTP communications to create an encrypted session link through the exchange of certificates and public encryption keys.

Security Accounts Manager (SAM) — The database of user accounts, group memberships, and security related settings.

security ID (SID) — A unique name that identifies a logged-on user to the security system. SIDs can identify one user or a group of users.

Security log — A log automatically created by Windows 2000 that records security-related events.

security options — Define and control various security features, functions, and controls of the Windows 2000 environment.

Sequenced Packet Exchange (SPX) — Novell's connection-oriented, reliable network communications protocol.

Serial Line Internet Protocol (SLIP) — An implementation of the IP protocol over serial lines. SLIP has been made obsolete by PPP.

server — The networked computer that responds to client requests for network resources.

Server Message Block (SMB) — The protocol used by Microsoft clients to request file and print services from Microsoft servers such as Windows 2000 Advanced Server.

Server service — The Windows 2000 component that handles the creation and management of shared resources and performs security checks against requests for such resources, including directories and printers. The Server service allows a Windows 2000 computer to act as a server on a client/server network, up to the maximum number of licensed clients.

service — A software element used by the operating system to perform a function. Services include offering resources over the network, accessing resources over the network, print spooling, etc.

service pack — A collection of code replacements, patches, error corrections, new applications, version improvements, or service-specific configuration settings from Microsoft that correct, replace, or hide the deficiencies of the original product or preceding service packs or hot fixes.

setup boot disks (or floppies) — The four disks used by Windows 2000 to initiate the installation process on computer systems that do not have an existing OS, do not have a CD-ROM that supports bootable CDs, or that do not have network access to a Windows 2000 distribution file share. These disks can be created by running the Makeboot file from the Bootdisk directory on the distribution CD.

Setup Manager — The Windows 2000 tool that provides you with a GUI interface for creating an answer file.

share — A resource, such as an application, file, printer, or other device, that can be accessed over the network.

shell — The default user process that is launched when a valid account name and password combination is authenticated by the WinLogon process for Windows 2000. The default shell of Windows 2000 is Windows Explorer. The default shell process manages the desktop, Start menu, taskbar, and other interface controls. The shell process defines a logged-on user's run-time environment from the point of authentication forward, and supplies all spawned processes or commands with its access token to define their access permissions, until that account logs out.

Simple Mail Transfer Protocol (SMTP) — The IP-based messaging protocol and service that supports most Internet e-mail.

Simple Network Management Protocol (SNMP) — The IP-based network management protocol and service that makes it possible for management applications to poll network devices and permits devices to report on error or alert conditions to such applications.

simple volume — A drive configuration of all or part of a single drive. Does not provide any fault tolerance. NTFS volumes can be extended; FAT and FAT32 volumes cannot be extended.

sites — The logical definitions in Active Directory that relate to the IP physical substructure of a company. Sites are defined as one or more IP subnets. This in turn relates to your network topology.

snap-in — A component that adds control mechanisms to a console for a specific service or object.

spanned volume — A drive configuration of two or more (up to 32) parts of one or more drives or two or more entire drives; the elements of the spanned volume do not have to be equal in size.

spooling — One of the functions of the print spooler, this is the act of writing the contents of a print job to a file on disk so they will not be lost if the print server is shut down before the job is completed.

striped volume — A drive configuration of two or more (up to 32) parts of one or more drives or two or more (up to 32) entire drives. Data is written to all drives in equal amounts (in 64 KB units) to spread the workload and improve performance.

subkey — A division of a Registry key, such as HKEY_LOCAL_MACHINE. A subkey can contain other subkeys and value entries.

subnet — A portion of a network that might or might not be a physically separate network. A subnet shares a network address with other parts of the network but is distinguished by a subnet number.

subnet mask — The number used to define which part of a computer's IP address denotes the host and which part denotes the network.

subsystem — An operating environment that emulates another operating system (such as OS/2 or POSIX) to provide support for applications created for that environment.

synchronization (directory synchronization) — A process in which two systems in a heterogeneous system share directory information, using an interim agent. The agent contains mapping tables and protocol support for both directories.

synchronization object — Any of a special class of objects within the Windows 2000 environment that are used to synchronize and control access to shared objects and critical sections of code.

Sysdiff — The Windows 2000 utility used to take a snapshot of a basic installation and, after changes have been made, record the changes and then apply them to another installation.

System log — A log automatically created by Windows 2000 that records information and alerts about the Windows 2000 internal processes.

System Monitor — The utility that tracks registered system or application objects, where each such object has one or more counters that can be tracked for information about system behavior.

system partition — In Windows 2000, the disk that contains the MBR and partition boot sector.; the active partition where the boot files required to display the boot menu and initiate the booting of Windows 2000 are stored.

System Preparation tool (Sysprep) — A tool used to duplicate an entire hard drive. This tool is useful when installing Windows 2000 onto multiple identical systems that require identical configurations.

system state data — A collection of system-specific data that can be backed up and restored using the Windows 2000 Backup utility.

Task Scheduler — The component of Windows 2000 used to automate the execution or launch of programs and batch files on the basis of time and system conditions.

Telephony Application Programming Interface (TAPI) — A Windows feature that supplies a uniform way of accessing fax, data, and voice. TAPI is part of the Windows Open System Architecture (WOSA) developed to aid third-party vendors in designing powerful, integrated telephony applications.

Telnet — The TCP/IP-based terminal emulation protocol used on IP-based networks to permit clients on one machine to attach to and operate on another machine on the network as if the other machines were terminals locally attached to a remote host.

thread — In the Windows 2000 run-time environment, a thread is the minimum unit of system execution and corresponds roughly to a task within an application, the Windows 2000 kernel, or within some other major system component. Any task that can execute in the background can be considered a thread (for example, run-time spell checking or grammar checking in newer versions of MS Word), but it's important to recognize that applications must be written to take advantage of threading (just as the operating system itself is).

Trace log — A log that records data when only certain events occur. Trace logs record nonconfigurable data from a designated provider when an event occurs.

transaction log — A file created by Windows 2000 to record Registry changes. These files, with a .log extension, are used to verify that changes to the Registry are made successfully.

transitive bidirectional trust — A standard trust relationship that occurs when a domain joins an existing tree. All domains in the Active Directory tree have two-way trusts established automatically.

Transmission Control Protocol (TCP) — The reliable, connection-oriented, IP-based transport protocol that supports many of the most important IP services, including HTTP, SMTP, and FTP.

Transmission Control Protocol/Internet Protocol (TCP/IP) — A suite of Internet protocols upon which the global Internet is based. TCP/IP is the default protocol for Windows 2000.

Transport Driver Interface (TDI) — The specification to which all Windows transport protocols must be written to be used by higher-layer services, such as programming interfaces, file systems, and interprocess communication mechanisms.

Trivial File Transfer Protocol (TFTP) — A lightweight alternative to FTP that uses UDP to provide only simple get-and-put capabilities for file transfer on IP-based networks.

trusts — The administrative links that allow user and group object security information to pass between secure boundaries (domains) in Active Directory.

unattended installation — A Windows 2000 installation that uses a previously made script to install from. Such an installation method does not require user interaction.

uniqueness database file (UDF) — A text file that contains a partial set of instructions for installing Windows 2000, to specify settings for individual users. Used to supplement an answer file, when only minor changes are needed that don't require a new answer file.

Universal Naming Convention (UNC) — A multivendor, multiplatform convention for identifying shared resources on a network.

upgrade installation — The installation method in which data and configuration settings from the previous operating systems remain intact. The level or amount of retained data varies according to the existing operating system's type.

user account — A named security element used by a computer system to identify individuals and to record activity, control access, and retain settings.

User Datagram Protocol (UDP) — A lightweight, connectionless transport protocol used as an alternative to TCP in IP-based environments to supply faster, lower overhead access, primarily (but not exclusively) to local resources.

user mode — (1) Systems running in user mode are operating in virtual private memory areas for each process, so that each process is protected from all others. User-mode processes may not manipulate hardware, but must send requests to kernel-mode services to do this manipulation for them. (2) The condition of a console that prevents adding or removing snap-ins or resaving the console file.

user profile — A collection of user-specific settings that retain the state of the desktop, start menu, color scheme, and other environmental aspects across logons. By default, user profiles are stored in \Document\Settings\ <*username*>, where *username* is the name of the user to whom the profile applies.

User Rights Policy — Defines which groups or users can perform the specific privileged action.

value — The actual data stored by a value entry.

value entry — A named Registry variable that stores a specific value or data string. A Registry value entry's name is typically a multiword phrase without spaces and with title capitalization.

virtual device driver (VDD) — A device driver used by virtual DOS machines (VDMs) to provide an interface between the application, which expects to interact with a 16-bit device driver, and the 32-bit device drivers that Windows 2000 provides.

virtual DOS machine (VDM) — A Win32 application that emulates a DOS environment for use by DOS and Win16 applications.

virtual memory — A Windows 2000 kernel service that stores memory pages that are not currently in use by the system in a paging file. This frees up memory for other uses. Virtual memory also hides the swapping of memory from applications and higher-level services.

Virtual Memory Manager (VMM) — The part of the operating system that handles process priority and scheduling, providing the ability to preempt executing processes and schedule new processes.

virtual private networks (VPNs) — Network connections that use encryption to transport private data across public links.

volume — (1) In basic storage, a collection of 2 to 32 partitions into a single logical structure. (2) In dynamic storage, any division of a physical drive or collection of divisions into a drive configuration.

volume set — A collection of disk partitions that are treated as a logical drive. A volume set may be expanded after it has already been created. To make a volume set smaller, however, you must back up all the data, delete the volume set, define a new (smaller) volume set, and restore the data to that set. If you lose one drive in a volume set, you lose all the data in the entire set, because it offers no fault tolerance.

Win16 operating environment — The collection of components, interfaces, and capabilities that permits Win16 applications to run within a VDM within the Win32 subsystem on Windows 2000.

Win16-on-Win32 subsystem (WOW) — The formal name for the collection of components, interfaces, and capabilities that permits the Win32 subsystem to provide native support for well-behaved 16-bit Windows applications.

Win32 — The main 32-bit subsystem used by Win32 applications and other application subsystems.

Windows 2000 Advanced Server — The new Microsoft network operating system (NOS) version designed to function as a high-end resource on a network.

Windows 2000 Datacenter Server — An enhanced version of Windows 2000 Server developed to host high-end applications, as well as support data warehousing, real-time transaction processing, and enterprise Web site hosting.

Windows 2000 Professional — The new Microsoft NOS version designed to function as a client/workstation on a network.

Windows 2000 Server — The new Microsoft NOS version designed to function as a resource host on a network.

Windows 3.x — An older, 16-bit version of Windows. Windows 2000 supports backward compatibility with most Windows 3.x applications.

Windows 95 — The 32-bit version of Windows that can operate as a standalone system or in a networked environment.

Windows 98 — An updated version of Windows 95 with improved Internet and network connectivity.

Windows for Workgroups — A version of Windows 3.x that includes minimal network support to allow the software to act as a network client.

Windows Installer Service (WIS) — A component of Windows 2000 that manages the installation and removal of applications by applying a set of centrally defined setup rules during the installation process.

Windows Internet Naming Service (WINS) — A service that provides NetBIOS name-to-IP-address resolution.

Windows NT — The Microsoft network operating system that was the predecessor to Windows 2000.

WinLogon — The process used by Windows 2000 to control user authentication and manage the logon process. WinLogon produces the logon dialog box where username, password, and domain are selected, and it controls automated logon, warning text, the display of the shutdown button, and the display of the last user to log onto the system.

Winnt — The 16-bit Windows 2000 installation program.

Winnt32 — The 32-bit Windows 2000 installation program.

wizard — A tool or utility that has an interactive step-by-step guide to walk you through a complex or detailed configuration process.

workgroup — A networking scheme in which resources, administration, and security are distributed throughout the network.

workgroup model — The networking setup in which users are managed jointly through the use of workgroups to which users are assigned.

Workstation service — The Windows component that supports client access to network resources and handles functions such as logging on, connecting to network shares (directories and printers), and creating links using the Windows 2000 IPC options.

X.25 — An ITU standard for packet-switched networking; common outside of the United States where its robust handling makes it a good match for substandard telephone networks.

X.500 — A series of International Telecommunications Union (ITU) protocol recommendations that specify a model for connecting local directory services to form one distributed global directory.

x86 — The chip architecture used by Intel and others to create 386 and later CPUs (including the Pentium).